

ABSTRACT

A trefoil for a rotary kiln is provided that has at least three spoke-like refractory legs. Each one of the legs extends radially outwardly from a center of the trefoil; spans approximately from the kiln shell to the center of the kiln; is pre-formed outside of the kiln for installation as a single-leg unit; and has a mating surface that preferably is uniform and even, thereby lacking interlocking features. The mating surfaces of the legs abut one another at the kiln center to provide mutual support. An alignment member, such as a pair of longitudinal angles, are welded to the kiln shell to position the legs. A corresponding method of installing the trefoil is disclosed that includes positioning and shimming the first two legs at the 4 o'clock position and 8 o'clock position, and installing the third leg at the 12 o'clock position.

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